

and its associated trim hardware, including any portion of a steering column assembly that provides energy absorption upon impact.

**S4. Requirements.** Each passenger car and each multipurpose passenger vehicle, truck and bus with a gross vehicle weight rating of 4,536 kg or less manufactured on or after September 1, 1981 shall meet the requirements of S5.1 and S5.2.

**S5. Impact protection requirements.**

**S5.1** Except as provided in this paragraph, the steering control system of any vehicle to which this standard applies shall be impacted in accordance with S5.1(a).

(a) When the steering control system is impacted by a body block in accordance with SAE Recommended Practice J944 JUN80 (incorporated by reference, see § 571.5), at a relative velocity of 24 km/h, the impact force developed on the chest of the body block transmitted to the steering control system shall not exceed 11,120 N, except for intervals whose cumulative duration is not more than 3 milliseconds.

(b) [Reserved]

**S5.2** The steering control system shall be so constructed that no components or attachments, including horn actuating mechanisms and trim hardware, can catch the driver's clothing or jewelry during normal driving maneuvers.

**NOTE:** The term jewelry refers to watches, rings, and bracelets without loosely attached or dangling members.

[36 FR 22902, Dec. 2, 1971, as amended at 44 FR 68475, Nov. 29, 1979; 47 FR 47842, Oct. 28, 1982; 58 FR 26527, May 4, 1993; 58 FR 63304, Dec. 1, 1993; 63 FR 28935, May 27, 1998; 63 FR 51003, Sept. 24, 1998; 76 FR 762, Jan. 6, 2012]

**§ 571.204 Standard No. 204; Steering control rearward displacement.**

**S1. Purpose and scope.** This standard specifies requirements limiting the rearward displacement of the steering control into the passenger compartment to reduce the likelihood of chest, neck, or head injury.

**S2. Application.** This standard applies to passenger cars and to multipurpose passenger vehicles, trucks, and buses. However, it does not apply to walk-in vans.

**S3. Definitions.**

*Steering column* means a structural housing that surrounds a steering shaft.

*Steering shaft* means a component that transmits steering torque from the steering wheel to the steering gear.

**S4 Requirements.**

**S4.1 Vehicles manufactured before September 1, 1991.** When a passenger car or a truck, bus, or multipurpose passenger vehicle with a gross vehicle weight rating of 10,000 pounds or less and an unloaded vehicle weight of 4,000 pounds or less is tested under the conditions of S5 in a 30 mile per hour perpendicular impact into a fixed collision barrier, the upper end of the steering column and shaft in the vehicle shall not be displaced more than 5 inches in a horizontal rearward direction parallel to the longitudinal axis of the vehicle. The amount of displacement shall be measured relative to an undisturbed point on the vehicle and shall represent the maximum dynamic movement of the upper end of the steering column and shaft during the crash test.

**S4.2 Vehicles manufactured on or after September 1, 1991.** When a passenger car or a truck, bus or multipurpose passenger vehicle with a gross vehicle weight rating of 4,536 kg or less and an unloaded vehicle weight of 2,495 kg or less is tested under the conditions of S5 in a 48 km/h perpendicular impact into a fixed collision barrier, the upper end of the steering column and shaft in the vehicle shall not be displaced more than 127 mm in a horizontal rearward direction parallel to the longitudinal axis of the vehicle. The amount of displacement shall be measured relative to an undisturbed point on the vehicle and shall represent the maximum dynamic movement of the upper end of the steering column and shaft during the crash test.

**S5. Test conditions.** The requirements of S4 shall be met when the vehicle is tested in accordance with the following conditions.

**S5.1** The vehicle, including test devices and instrumentation, is loaded to its unloaded vehicle weight.

**S5.2** Adjustable steering controls are adjusted so that a tilting steering wheel hub is at the geometric center of the locus it describes when it is moved

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through its full range of driving positions. A telescoping steering control is set at the adjustment position midway between the forwardmost and rearwardmost position.

S5.3 Convertibles and open-body type vehicles have the top, if any, in place in the closed passenger compartment configuration.

S5.4 Doors are fully closed and latched but not locked.

S5.5 The fuel tank is filled to any level from 90 to 95 percent of capacity.

S5.6 The parking brake is disengaged and the transmission is in neutral.

S5.7 Tires are inflated to the vehicle manufacturer's specifications.

[52 FR 44897, Nov. 23, 1987, as amended at 63 FR 28935, May 27, 1998; 63 FR 51003, Sept. 24, 1998]

### § 571.205 Standard No. 205, Glazing materials.

S1. *Scope.* This standard specifies requirements for glazing materials for use in motor vehicles and motor vehicle equipment.

S2. *Purpose.* The purpose of this standard is to reduce injuries resulting from impact to glazing surfaces, to ensure a necessary degree of transparency in motor vehicle windows for driver visibility, and to minimize the possibility of occupants being thrown through the vehicle windows in collisions.

S3. *Application.*

(a) This standard applies to passenger cars, multipurpose passenger vehicles, trucks, buses, motorcycles, slide-in campers, pickup covers designed to carry persons while in motion and low speed vehicles, and to glazing materials for use in those vehicles.

(b) For glazing materials manufactured before September 1, 2006, and for motor vehicles, slide-in campers and pickup covers designed to carry persons while in motion, manufactured before November 1, 2006, the manufacturer may, at its option, comply with 49 CFR 571.205(a) of this section.

S4. *Definitions.*

*Bullet resistant shield* means a shield or barrier that is installed completely inside a motor vehicle behind and separate from glazing materials that inde-

pendently comply with the requirements of this standard.

*Camper* means a structure designed to be mounted in the cargo area of a truck, or attached to an incomplete vehicle with motive power, for the purpose of providing shelter for persons.

*Glass-plastic glazing material* means a laminate of one or more layers of glass and one or more layers of plastic in which a plastic surface of the glazing faces inward when the glazing is installed in a vehicle.

*Pickup cover* means a camper having a roof and sides but without a floor, designed to be mounted on and removable from the cargo area of a truck by the user.

*Prime glazing manufacturer* means a manufacturer that fabricates, laminates, or tempers glazing materials.

*Slide-in camper* means a camper having a roof, floor, and sides, designed to be mounted on and removable from the cargo area of a truck by the user.

S5. *Requirements.*

S5.1 Glazing materials for use in motor vehicles must conform to ANSI/SAE Z26.1–1996 (incorporated by reference, see § 571.5), unless this standard provides otherwise. SAE Recommended Practice J673 (1993) (incorporated by reference, see § 571.5) is referenced in ANSI/SAE Z26.1–1996.

S5.1.1 *Multipurpose passenger vehicles.* Except as otherwise specifically provided by this standard, glazing for use in multipurpose passenger vehicles shall conform to the requirements for glazing for use in trucks as specified in ANSI/SAE Z26.1–1996 (incorporated by reference, see § 571.5).

S5.1.2 *Aftermarket replacement glazing.* Glazing intended for aftermarket replacement is required to meet the requirements of this standard or the requirements of 49 CFR 571.205(a) applicable to the glazing being replaced.

S5.1.3 *Location of arrow within “AS” markings.* In ANSI/SAE Z26.1–1996 (incorporated by reference, see § 571.5) Section 7, “Marking of Safety Glazing Materials,” on page 33, in the right column, in the first complete sentence, the example markings “AS↓1”, “AS↓14” and “AS↑2” are corrected to read “A↓S1”, “A↓S14” and “A↑S2”. Note that the arrow indicating the portion of the material that complies with